

SEQUENZPROTOKOLL

<110> Bayer Aktiengesellschaft

<120> GABA-B-Rezeptoren

<130> Le A 34 074

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<150> DE 199 55 408.0

<151> 1999-11-18

<160> 6

<170> PatentIn Ver. 2.1

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Ile Ala Gly Phe Phe Pro Tyr Gly Asp Gly Val Glu Asn Ser Tyr Thr	
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His Val Thr Asp Pro Ile Ala Lys Ala Ser Lys His Trp His Leu Thr	
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Gln Leu Ser Tyr Ala Asp Thr His Pro Met Phe Thr Lys Asp Ala Phe	
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Tyr Gln Asn Glu	Pro Arg Tyr Ser	Leu Pro His Asn	His Met Val Ala	
	180	185	190	
gac ctg gat gcc	atg gag gtc gag	gtg gtg gaa acg	cag agc ttc gtc	624
Asp Leu Asp Ala	Met Glu Val Glu	Val Val Glu Thr	Gln Ser Phe Val	
	195	200	205	
aac gat gtg gct	gaa tca ttg aag	aaa ctg cgc gag	aag gac gtg agg	672
Asn Asp Val Ala	Glu Ser Leu Lys	Lys Leu Arg Glu	Lys Asp Val Arg	
	210	215	220	
atc att ctg ggc	aac ttt aac gag	cac ttt gca cgc	aag gca ttc tgt	720
Ile Ile Leu Gly	Asn Phe Asn Glu	His Phe Ala Arg	Lys Ala Phe Cys	
	225	230	235	240
gag gct tat aaa	ttg gat atg tat	ggc aga gcc tat	caa tgg ctg atc	768
Glu Ala Tyr Lys	Leu Asp Met Tyr	Gly Arg Ala Tyr	Gln Trp Leu Ile	
	245	250	255	
atg gct acc tat	tcc acg gat tgg	tgg aat gtc acg	cag gac agc gag	816
Met Ala Thr Tyr	Ser Thr Asp Trp	Trp Asn Val Thr	Gln Asp Ser Glu	
	260	265	270	
tgc agt gtg gag	gag atc gct aca	gcc ttg gaa ggt	gcc att cta gtg	864
Cys Ser Val Glu	Glu Ile Ala Thr	Ala Leu Glu Gly	Ala Ile Leu Val	
	275	280	285	
gat ctt ttg ccc	ttg tcc acc agt	ggg gac atc aca	gtg gct ggc att	912
Asp Leu Leu Pro	Leu Ser Thr Ser	Gly Asp Ile Thr	Val Ala Gly Ile	
	290	295	300	
act gct gat gag	tat ctt gtg gag	tac gac aga ctg	cga ggc act gaa	960
Thr Ala Asp Glu	Tyr Leu Val Glu	Tyr Asp Arg Leu	Arg Gly Thr Glu	
	305	310	315	320
tat tcc cgc ttt	cat ggc tat acc	tac gat ggt atc	tgg gca gct gcc	1008
Tyr Ser Arg Phe	His Gly Tyr Thr	Tyr Asp Gly Ile	Trp Ala Ala Ala	
	325	330	335	
ctg gcc att cag	tat gtg gcc gaa	aag cga gag gat	ctg cta aca cat	1056
Leu Ala Ile Gln	Tyr Val Ala Glu	Lys Arg Glu Asp	Leu Leu Thr His	
	340	345	350	
ttt gat tat cgc	gtg aag gac tgg	gag agt gtc ttc	ctt gag gct cta	1104
Phe Asp Tyr Arg	Val Lys Asp Trp	Glu Ser Val Phe	Leu Glu Ala Leu	
	355	360	365	
cgt aat aca tcc	ttc gag ggt gtg	acg gga ccc gtg	cgt ttc tac aac	1152
Arg Asn Thr Ser	Phe Glu Gly Val	Thr Gly Pro Val	Arg Phe Tyr Asn	
	370	375	380	

aac gag cgc aag gcc aac atc ctg atc aat cag ttt cag ctg gga caa	1200
Asn Glu Arg Lys Ala Asn Ile Leu Ile Asn Gln Phe Gln Leu Gly Gln	
385 390 395 400	
atg gaa aag atc ggg gaa tac cac tca cag aag tca cac ttg gat tta	1248
Met Glu Lys Ile Gly Glu Tyr His Ser Gln Lys Ser His Leu Asp Leu	
405 410 415	
agc ttg gga aaa cca gtc aaa tgg gtg ggg aaa act cct ccc aag gat	1296
Ser Leu Gly Lys Pro Val Lys Trp Val Gly Lys Thr Pro Pro Lys Asp	
420 425 430	
cgc act ttg atc tac atc gag cac agt cag gtc aat cca acc ata tat	1344
Arg Thr Leu Ile Tyr Ile Glu His Ser Gln Val Asn Pro Thr Ile Tyr	
435 440 445	
att gta tcg gct agt gct tcg gtc att gga gtg att att gcc aca gtt	1392
Ile Val Ser Ala Ser Ala Ser Val Ile Gly Val Ile Ile Ala Thr Val	
450 455 460	
ttt ctg gcc ttt aac att aag tat cgc aat caa aga tac atc aag atg	1440
Phe Leu Ala Phe Asn Ile Lys Tyr Arg Asn Gln Arg Tyr Ile Lys Met	
465 470 475 480	
tcc agt ccc cat ttg aac aat ctg atc att gtg ggc tgt atg att acc	1488
Ser Ser Pro His Leu Asn Asn Leu Ile Ile Val Gly Cys Met Ile Thr	
485 490 495	
tat ttg agc atc att ttc ctg ggt ctc gat acc aca tta agt agt gtg	1536
Tyr Leu Ser Ile Ile Phe Leu Gly Leu Asp Thr Thr Leu Ser Ser Val	
500 505 510	
gca gct ttt ccc tat atc tgc aca gct cga gcc tgg atc ttg atg gct	1584
Ala Ala Phe Pro Tyr Ile Cys Thr Ala Arg Ala Trp Ile Leu Met Ala	
515 520 525	
gga ttc agt ctc agt ttt gga gcc atg ttc tcg aag acg tgg cgg gtg	1632
Gly Phe Ser Leu Ser Phe Gly Ala Met Phe Ser Lys Thr Trp Arg Val	
530 535 540	
cat tcg ata ttc acc gat ctg aag ctc aat aag aag gtg atc aag gac	1680
His Ser Ile Phe Thr Asp Leu Lys Leu Asn Lys Lys Val Ile Lys Asp	
545 550 555 560	
tat caa ttg ttt atg gtt gtg ggc gtg ctt ttg gcc att gat ata gcc	1728
Tyr Gln Leu Phe Met Val Val Gly Val Leu Leu Ala Ile Asp Ile Ala	
565 570 575	
att ata acc acc tgg cag att gcc gat ccc ttt tac cgc gaa act aaa	1776
Ile Ile Thr Thr Trp Gln Ile Ala Asp Pro Phe Tyr Arg Glu Thr Lys	
580 585 590	
cag ttg gaa ccc ttg cat cac gag aat att gat gat gtc ttg gtg atc	1824
Gln Leu Glu Pro Leu His His Glu Asn Ile Asp Asp Val Leu Val Ile	
595 600 605	

ccc gaa aac gag tac tgc cag tct gag cac atg acc ata ttc gtt agc	1872
Pro Glu Asn Glu Tyr Cys Gln Ser Glu His Met Thr Ile Phe Val Ser	
610 615 620	
att att tat gcc tac aag gga ctg ttg ttg gtt ttt ggc gcc ttt ttg	1920
Ile Ile Tyr Ala Tyr Lys Gly Leu Leu Leu Val Phe Gly Ala Phe Leu	
625 630 635 640	
gcc tgg gaa act cga cat gtt tct ata ccg gct ctg aac gat tcc aag	1968
Ala Trp Glu Thr Arg His Val Ser Ile Pro Ala Leu Asn Asp Ser Lys	
645 650 655	
cat att ggt ttc tcc gtt tat aac gtg ttc atc act tgt ctg gcc gga	2016
His Ile Gly Phe Ser Val Tyr Asn Val Phe Ile Thr Cys Leu Ala Gly	
660 665 670	
gcg gct ata tcc ctg gtg cta tcg gat cga aag gat tta gtt ttt gtc	2064
Ala Ala Ile Ser Leu Val Leu Ser Asp Arg Lys Asp Leu Val Phe Val	
675 680 685	
tta ctc tcg ttt ttt atc att ttt tgt acg aca gcc act ttg tgt ttg	2112
Leu Leu Ser Phe Phe Ile Ile Phe Cys Thr Thr Ala Thr Leu Cys Leu	
690 695 700	
gtg ttc gta ccg aaa ttg gtg gag ctg aag cgg aat ccc cag ggc gtg	2160
Val Phe Val Pro Lys Leu Val Glu Leu Lys Arg Asn Pro Gln Gly Val	
705 710 715 720	
gtg gac aaa cgc gtt agg gcc acg ttg aga ccc atg tcc aaa aac gga	2208
Val Asp Lys Arg Val Arg Ala Thr Leu Arg Pro Met Ser Lys Asn Gly	
725 730 735	
cgc cgg gat tcc tcg gtg tgc gaa ctg gag caa cga ttg cga gat gta	2256
Arg Arg Asp Ser Val Cys Glu Leu Glu Gln Arg Leu Arg Asp Val	
740 745 750	
aag aac aca aac tgc cga ttc cga aag gcg ctg atg gag aag gag aac	2304
Lys Asn Thr Asn Cys Arg Phe Arg Lys Ala Leu Met Glu Lys Glu Asn	
755 760 765	
gag ctg cag gcc tta atc cgc aag ctg gga ccc gag gca cgc aaa tgg	2352
Glu Leu Gln Ala Leu Ile Arg Lys Leu Gly Pro Glu Ala Arg Lys Trp	
770 775 780	
atc gat ggg gtg acc tgc aca ggt ggc tcc aac gtc ggt agc gaa ctg	2400
Ile Asp Gly Val Thr Cys Thr Gly Gly Ser Asn Val Gly Ser Glu Leu	
785 790 795 800	
gag ccc ata ctg aac gat gac att gtt agg ctc tca gct cca ccg gtg	2448
Glu Pro Ile Leu Asn Asp Asp Ile Val Arg Leu Ser Ala Pro Pro Val	
805 810 815	
cgt cga gag atg ccc agc acc aca gtt acc gag atg acg tcc gtg gat	2496
Arg Arg Glu Met Pro Ser Thr Thr Val Thr Glu Met Thr Ser Val Asp	
820 825 830	
agt gtg acc tcg act cat gtg gag atg gat aac tcc ttt gtg tcg gtg	2544

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Ser	Val	Thr	Ser	Thr	His	Val	Glu	Met	Asp	Asn	Ser	Phe	Val	Ser	Val		
		835					840					845					
cag	tct	aca	gtg	atg	gcg	cca	tcg	ctt	cct	ccc	aaa	aag	aaa	aag	caa	2592	
Gln	Ser	Thr	Val	Met	Ala	Pro	Ser	Leu	Pro	Pro	Lys	Lys	Lys	Lys	Gln		
		850				855					860						
tcg	att	gta	gag	cac	cac	tcg	cat	gcc	cct	gct	cca	act	atg	atg	cag	2640	
Ser	Ile	Val	Glu	His	His	Ser	His	Ala	Pro	Ala	Pro	Thr	Met	Met	Gln		
		865			870				875					880			
ccc	atc	cag	cag	caa	ctg	cag	cag	cac	tta	cag	caa	cat	cag	cag	atg	2688	
Pro	Ile	Gln	Gln	Gln	Leu	Gln	Gln	His	Leu	Gln	Gln	His	Gln	Gln	Met		
				885					890					895			
cag	cag	cag	cac	ctg	cag	cag	cag	caa	cac	cag	cag	atg	caa	cag	caa	2736	
Gln	Gln	Gln	His	Leu	Gln	Gln	Gln	Gln	His	Gln	Gln	Met	Gln	Gln	Gln		
			900					905					910				
cag	cag	cag	cag	cag	cat	cat	cat	cgc	cat	ctg	gag	aag	aga	aac	tcg	2784	
Gln	Gln	Gln	Gln	Gln	His	His	His	Arg	His	Leu	Glu	Lys	Arg	Asn	Ser		
			915				920					925					
gtg	tcc	gct	cag	acc	gat	gat	aat	ata	ggc	agc	atc	acc	agt	acg	gcg	2832	
Val	Ser	Ala	Gln	Thr	Asp	Asp	Asn	Ile	Gly	Ser	Ile	Thr	Ser	Thr	Ala		
		930				935					940						
ggc	aag	cgg	agc	gga	gga	gac	tgc	tcc	agc	atg	cgg	gag	agg	cgt	caa	2880	
Gly	Lys	Arg	Ser	Gly	Gly	Asp	Cys	Ser	Ser	Met	Arg	Glu	Arg	Arg	Gln		
				950					955					960			
tcg	acc	gcc	tcc	agg	cac	tac	gac	agt	ggc	agc	cag	acg	ccc	acc	gcc	2928	
Ser	Thr	Ala	Ser	Arg	His	Tyr	Asp	Ser	Gly	Ser	Gln	Thr	Pro	Thr	Ala		
				965					970					975			
cgg	cca	aag	tac	agc	agc	tcg	cac	cgg	aac	tcc	tcc	acc	aac	atc	tcc	2976	
Arg	Pro	Lys	Tyr	Ser	Ser	Ser	His	Arg	Asn	Ser	Ser	Thr	Asn	Ile	Ser		
			980					985					990				
aca	tcg	caa	tcg	gag	ttg	agc	aac	atg	tgt	cca	cac	tca	aag	ccc	agt	3024	
Thr	Ser	Gln	Ser	Glu	Leu	Ser	Asn	Met	Cys	Pro	His	Ser	Lys	Pro	Ser		
		995				1000					1005						
act	ccg	gct	gtg	att	aag	act	ccc	act	gcc	tcc	gac	cat	cgc	cgc	acc	3072	
Thr	Pro	Ala	Val	Ile	Lys	Thr	Pro	Thr	Ala	Ser	Asp	His	Arg	Arg	Thr		
	1010					1015				1020							
agc	atg	ggc	tcc	gct	ctg	aag	tcc	aat	ttc	gtg	gtt	tca	cag	agt	gac	3120	
Ser	Met	Gly	Ser	Ala	Leu	Lys	Ser	Asn	Phe	Val	Val	Ser	Gln	Ser	Asp		
	1025				1030				1035				1040				
ctc	tgg	gac	acg	cac	acg	ctg	tcg	cac	gcc	aag	cag	cgc	cag	tcg	ccg	3168	
Leu	Trp	Asp	Thr	His	Thr	Leu	Ser	His	Ala	Lys	Gln	Arg	Gln	Ser	Pro		
				1045				1050					1055				
cgg	aac	tac	gcc	agt	ccg	cag	cgc	tgt	gcg	gaa	cat	cat	ggc	ggc	cac	3216	
Arg	Asn	Tyr	Ala	Ser	Pro	Gln	Arg	Cys	Ala	Glu	His	His	Gly	Gly	His		

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1060	1065	1070	
ggg atg acc tat gac ccg aac acc acc tcg ccc atc cag cgg tcc gtc			3264
Gly Met Thr Tyr Asp Pro Asn Thr Thr Ser Pro Ile Gln Arg Ser Val			
1075	1080	1085	
tcc gag aag aac cgc aac aaa cat cgg cca aaa ccg caa aag ggc acc			3312
Ser Glu Lys Asn Arg Asn Lys His Arg Pro Lys Pro Gln Lys Gly Thr			
1090	1095	1100	
gtt tgc cag agc gag acg gac agc gaa cgg gaa cga gat ccg ccg ccc			3360
Val Cys Gln Ser Glu Thr Asp Ser Glu Arg Glu Arg Asp Pro Pro Pro			
1105	1110	1115	1120
aac agt cag ccg tgc gtc cag ccg cgt aag gtc agc cgg agc tct aac			3408
Asn Ser Gln Pro Cys Val Gln Pro Arg Lys Val Ser Arg Ser Ser Asn			
1125	1130	1135	
atc cag cac gcc gcc cac cac cac agt tcg ccc aat gtg gcg ccc gat			3456
Ile Gln His Ala Ala His His His Ser Ser Pro Asn Val Ala Pro Asp			
1140	1145	1150	
aag cag cgg agc agg cag cgc ggc aag cag gat agc agc atc tac ggc			3504
Lys Gln Arg Ser Arg Gln Arg Gly Lys Gln Asp Ser Ser Ile Tyr Gly			
1155	1160	1165	
gcc agc agc gag acg gaa ctg ctc gag ggc gag acg gca att ttg ccc			3552
Ala Ser Ser Glu Thr Glu Leu Leu Glu Gly Glu Thr Ala Ile Leu Pro			
1170	1175	1180	
atc ttc cgg aaa ctc ctc acc gag aag agt ccc aac tat cgg ggc cgc			3600
Ile Phe Arg Lys Leu Leu Thr Glu Lys Ser Pro Asn Tyr Arg Gly Arg			
1185	1190	1195	1200
agt gcc gtg ggc cag agc tgt ccg aat ata tcc atc aaa tgc gat atc			3648
Ser Ala Val Gly Gln Ser Cys Pro Asn Ile Ser Ile Lys Cys Asp Ile			
1205	1210	1215	
gtc gag tac ttg tag			3663
Val Glu Tyr Leu			
1220			
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<211> 1220			
<212> PRT			
<213> Drosophila melanogaster			
<400> 4			
Met Phe Arg Pro Ser Trp Phe Pro Phe Ala Ser Leu Leu Phe Leu Leu			
1	5	10	15
Leu Trp Ser Thr Ala Cys Gly Arg Thr Ala Lys Arg Ser Asp Val Tyr			
20	25	30	
Ile Ala Gly Phe Phe Pro Tyr Gly Asp Gly Val Glu Asn Ser Tyr Thr			
35	40	45	

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Gly	Arg	Gly	Val	Met	Pro	Ser	Val	Lys	Leu	Ala	Leu	Gly	His	Val	Asn	50	55	60
Glu	His	Gly	Lys	Ile	Leu	Ala	Asn	Tyr	Arg	Leu	His	Met	Trp	Trp	Asn	65	70	75
Asp	Thr	Gln	Cys	Asn	Ala	Ala	Val	Gly	Val	Lys	Ser	Phe	Phe	Asp	Met	85	90	95
Met	His	Ser	Gly	Pro	Asn	Lys	Val	Met	Leu	Phe	Gly	Ala	Ala	Cys	Thr	100	105	110
His	Val	Thr	Asp	Pro	Ile	Ala	Lys	Ala	Ser	Lys	His	Trp	His	Leu	Thr	115	120	125
Gln	Leu	Ser	Tyr	Ala	Asp	Thr	His	Pro	Met	Phe	Thr	Lys	Asp	Ala	Phe	130	135	140
Pro	Asn	Phe	Phe	Arg	Val	Val	Pro	Ser	Glu	Asn	Ala	Phe	Asn	Ala	Pro	145	150	155
Arg	Leu	Ala	Leu	Leu	Lys	Glu	Phe	Asn	Trp	Thr	Arg	Val	Gly	Thr	Val	165	170	175
Tyr	Gln	Asn	Glu	Pro	Arg	Tyr	Ser	Leu	Pro	His	Asn	His	Met	Val	Ala	180	185	190
Asp	Leu	Asp	Ala	Met	Glu	Val	Glu	Val	Val	Glu	Thr	Gln	Ser	Phe	Val	195	200	205
Asn	Asp	Val	Ala	Glu	Ser	Leu	Lys	Lys	Leu	Arg	Glu	Lys	Asp	Val	Arg	210	215	220
Ile	Ile	Leu	Gly	Asn	Phe	Asn	Glu	His	Phe	Ala	Arg	Lys	Ala	Phe	Cys	225	230	235
Glu	Ala	Tyr	Lys	Leu	Asp	Met	Tyr	Gly	Arg	Ala	Tyr	Gln	Trp	Leu	Ile	245	250	255
Met	Ala	Thr	Tyr	Ser	Thr	Asp	Trp	Trp	Asn	Val	Thr	Gln	Asp	Ser	Glu	260	265	270
Cys	Ser	Val	Glu	Glu	Ile	Ala	Thr	Ala	Leu	Glu	Gly	Ala	Ile	Leu	Val	275	280	285
Asp	Leu	Leu	Pro	Leu	Ser	Thr	Ser	Gly	Asp	Ile	Thr	Val	Ala	Gly	Ile	290	295	300
Thr	Ala	Asp	Glu	Tyr	Leu	Val	Glu	Tyr	Asp	Arg	Leu	Arg	Gly	Thr	Glu	305	310	315
Tyr	Ser	Arg	Phe	His	Gly	Tyr	Thr	Tyr	Asp	Gly	Ile	Trp	Ala	Ala	Ala	325	330	335
Leu	Ala	Ile	Gln	Tyr	Val	Ala	Glu	Lys	Arg	Glu	Asp	Leu	Leu	Thr	His	340	345	350

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Phe	Asp	Tyr	Arg	Val	Lys	Asp	Trp	Glu	Ser	Val	Phe	Leu	Glu	Ala	Leu	355	360	365	
Arg	Asn	Thr	Ser	Phe	Glu	Gly	Val	Thr	Gly	Pro	Val	Arg	Phe	Tyr	Asn	370	375	380	
Asn	Glu	Arg	Lys	Ala	Asn	Ile	Leu	Ile	Asn	Gln	Phe	Gln	Leu	Gly	Gln	385	390	395	400
Met	Glu	Lys	Ile	Gly	Glu	Tyr	His	Ser	Gln	Lys	Ser	His	Leu	Asp	Leu	405	410	415	
Ser	Leu	Gly	Lys	Pro	Val	Lys	Trp	Val	Gly	Lys	Thr	Pro	Pro	Lys	Asp	420	425	430	
Arg	Thr	Leu	Ile	Tyr	Ile	Glu	His	Ser	Gln	Val	Asn	Pro	Thr	Ile	Tyr	435	440	445	
Ile	Val	Ser	Ala	Ser	Ala	Ser	Val	Ile	Gly	Val	Ile	Ile	Ala	Thr	Val	450	455	460	
Phe	Leu	Ala	Phe	Asn	Ile	Lys	Tyr	Arg	Asn	Gln	Arg	Tyr	Ile	Lys	Met	465	470	475	480
Ser	Ser	Pro	His	Leu	Asn	Asn	Leu	Ile	Ile	Val	Gly	Cys	Met	Ile	Thr	485	490	495	
Tyr	Leu	Ser	Ile	Ile	Phe	Leu	Gly	Leu	Asp	Thr	Thr	Leu	Ser	Ser	Val	500	505	510	
Ala	Ala	Phe	Pro	Tyr	Ile	Cys	Thr	Ala	Arg	Ala	Trp	Ile	Leu	Met	Ala	515	520	525	
Gly	Phe	Ser	Leu	Ser	Phe	Gly	Ala	Met	Phe	Ser	Lys	Thr	Trp	Arg	Val	530	535	540	
His	Ser	Ile	Phe	Thr	Asp	Leu	Lys	Leu	Asn	Lys	Lys	Val	Ile	Lys	Asp	545	550	555	560
Tyr	Gln	Leu	Phe	Met	Val	Val	Gly	Val	Leu	Leu	Ala	Ile	Asp	Ile	Ala	565	570	575	
Ile	Ile	Thr	Thr	Trp	Gln	Ile	Ala	Asp	Pro	Phe	Tyr	Arg	Glu	Thr	Lys	580	585	590	
Gln	Leu	Glu	Pro	Leu	His	His	Glu	Asn	Ile	Asp	Asp	Val	Leu	Val	Ile	595	600	605	
Pro	Glu	Asn	Glu	Tyr	Cys	Gln	Ser	Glu	His	Met	Thr	Ile	Phe	Val	Ser	610	615	620	
Ile	Ile	Tyr	Ala	Tyr	Lys	Gly	Leu	Leu	Leu	Val	Phe	Gly	Ala	Phe	Leu	625	630	635	640
Ala	Trp	Glu	Thr	Arg	His	Val	Ser	Ile	Pro	Ala	Leu	Asn	Asp	Ser	Lys	645	650	655	

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His	Ile	Gly	Phe	Ser	Val	Tyr	Asn	Val	Phe	Ile	Thr	Cys	Leu	Ala	Gly	660	665	670	
Ala	Ala	Ile	Ser	Leu	Val	Leu	Ser	Asp	Arg	Lys	Asp	Leu	Val	Phe	Val	675	680	685	
Leu	Leu	Ser	Phe	Phe	Ile	Ile	Phe	Cys	Thr	Thr	Ala	Thr	Leu	Cys	Leu	690	695	700	
Val	Phe	Val	Pro	Lys	Leu	Val	Glu	Leu	Lys	Arg	Asn	Pro	Gln	Gly	Val	705	710	715	720
Val	Asp	Lys	Arg	Val	Arg	Ala	Thr	Leu	Arg	Pro	Met	Ser	Lys	Asn	Gly	725	730	735	
Arg	Arg	Asp	Ser	Ser	Val	Cys	Glu	Leu	Glu	Gln	Arg	Leu	Arg	Asp	Val	740	745	750	
Lys	Asn	Thr	Asn	Cys	Arg	Phe	Arg	Lys	Ala	Leu	Met	Glu	Lys	Glu	Asn	755	760	765	
Glu	Leu	Gln	Ala	Leu	Ile	Arg	Lys	Leu	Gly	Pro	Glu	Ala	Arg	Lys	Trp	770	775	780	
Ile	Asp	Gly	Val	Thr	Cys	Thr	Gly	Gly	Ser	Asn	Val	Gly	Ser	Glu	Leu	785	790	795	800
Glu	Pro	Ile	Leu	Asn	Asp	Asp	Ile	Val	Arg	Leu	Ser	Ala	Pro	Pro	Val	805	810	815	
Arg	Arg	Glu	Met	Pro	Ser	Thr	Thr	Val	Thr	Glu	Met	Thr	Ser	Val	Asp	820	825	830	
Ser	Val	Thr	Ser	Thr	His	Val	Glu	Met	Asp	Asn	Ser	Phe	Val	Ser	Val	835	840	845	
Gln	Ser	Thr	Val	Met	Ala	Pro	Ser	Leu	Pro	Pro	Lys	Lys	Lys	Lys	Gln	850	855	860	
Ser	Ile	Val	Glu	His	His	Ser	His	Ala	Pro	Ala	Pro	Thr	Met	Met	Gln	865	870	875	880
Pro	Ile	Gln	Gln	Gln	Leu	Gln	Gln	His	Leu	Gln	Gln	His	Gln	Gln	Met	885	890	895	
Gln	Gln	Gln	His	Leu	Gln	Gln	Gln	Gln	His	Gln	Gln	Met	Gln	Gln	Gln	900	905	910	
Gln	Gln	Gln	Gln	Gln	His	His	His	Arg	His	Leu	Glu	Lys	Arg	Asn	Ser	915	920	925	
Val	Ser	Ala	Gln	Thr	Asp	Asp	Asn	Ile	Gly	Ser	Ile	Thr	Ser	Thr	Ala	930	935	940	
Gly	Lys	Arg	Ser	Gly	Gly	Asp	Cys	Ser	Ser	Met	Arg	Glu	Arg	Arg	Gln	945	950	955	960

Ser Thr Ala Ser Arg His Tyr Asp Ser Gly Ser Gln Thr Pro Thr Ala
965 970 975

Arg Pro Lys Tyr Ser Ser Ser His Arg Asn Ser Ser Thr Asn Ile Ser
980 985 990

Thr Ser Gln Ser Glu Leu Ser Asn Met Cys Pro His Ser Lys Pro Ser
995 1000 1005

Thr Pro Ala Val Ile Lys Thr Pro Thr Ala Ser Asp His Arg Arg Thr
1010 1015 1020

Ser Met Gly Ser Ala Leu Lys Ser Asn Phe Val Val Ser Gln Ser Asp
025 1030 1035 1040

Leu Trp Asp Thr His Thr Leu Ser His Ala Lys Gln Arg Gln Ser Pro
1045 1050 1055

Arg Asn Tyr Ala Ser Pro Gln Arg Cys Ala Glu His His Gly Gly His
1060 1065 1070

Gly Met Thr Tyr Asp Pro Asn Thr Thr Ser Pro Ile Gln Arg Ser Val
1075 1080 1085

Ser Glu Lys Asn Arg Asn Lys His Arg Pro Lys Pro Gln Lys Gly Thr
1090 1095 1100

Val Cys Gln Ser Glu Thr Asp Ser Glu Arg Glu Arg Asp Pro Pro Pro
105 1110 1115 1120

Asn Ser Gln Pro Cys Val Gln Pro Arg Lys Val Ser Arg Ser Ser Asn
1125 1130 1135

Ile Gln His Ala Ala His His His Ser Ser Pro Asn Val Ala Pro Asp
1140 1145 1150

Lys Gln Arg Ser Arg Gln Arg Gly Lys Gln Asp Ser Ser Ile Tyr Gly
1155 1160 1165

Ala Ser Ser Glu Thr Glu Leu Leu Glu Gly Glu Thr Ala Ile Leu Pro
1170 1175 1180

Ile Phe Arg Lys Leu Leu Thr Glu Lys Ser Pro Asn Tyr Arg Gly Arg
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Val Glu Tyr Leu
1220

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gcc gtg gga ctg agg cta gtc ctg gcc ctt gcc tgg gca acg tcg gca	96
Ala Val Gly Leu Arg Leu Val Leu Ala Leu Ala Trp Ala Thr Ser Ala	
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gcg gct gcc atg gag tca tca gcc gag ctg cag gcc ctg ggc cac gag	144
Ala Ala Ala Met Glu Ser Ser Ala Glu Leu Gln Ala Leu Gly His Glu	
35 40 45	
gca att agg cca ggt gct gcc tca att agc aca tcc agc cca tcc agc	192
Ala Ile Arg Pro Gly Ala Ala Ser Ile Ser Thr Ser Ser Pro Ser Ser	
50 55 60	
tcg cca ccc gga gaa tcg gca tcg act gtg act gca ggg ggg act ccg	240
Ser Pro Pro Gly Glu Ser Ala Ser Thr Val Thr Ala Gly Gly Thr Pro	
65 70 75 80	
att cca ccg cgc tcc gat tgg aag tac aaa cgg acg aaa gtc aaa cgc	288
Ile Pro Pro Arg Ser Asp Trp Lys Tyr Lys Arg Thr Lys Val Lys Arg	
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cgg cag cag cgc ctc aat tcg cac agc aat ctg ccc gga agc acc aat	336
Arg Gln Gln Arg Leu Asn Ser His Ser Asn Leu Pro Gly Ser Thr Asn	
100 105 110	
gcc tcc cac gct cac cac ctc ctc aat ctg ccc ccc agg cag cga tac	384
Ala Ser His Ala His His Leu Leu Asn Leu Pro Pro Arg Gln Arg Tyr	
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Leu Lys Val Asn Gln Val Phe Glu Ser Glu Arg Arg Met Ser Pro Ala	
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Glu Met Gln Arg Asn His Gly Lys Ile Val Leu Leu Gly Leu Phe Glu	
145 150 155 160	
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Leu Ser Thr Ser Arg Gly Pro Arg Pro Asp Gly Leu Ser Glu Leu Gly	
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gct gcc acc atg gcc gtg gaa cac atc aac cgc aag cgc ctg ctg ccg	576
Ala Ala Thr Met Ala Val Glu His Ile Asn Arg Lys Arg Leu Leu Pro	
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Gly Tyr Thr Leu Glu Leu Val Thr Asn Asp Thr Gln Cys Asp Pro Gly	

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gcc aac ata tcc tgt gcc gcc acc atc acc ttt gcg gcc acc gac ttc Ala Asn Ile Ser Cys Ala Ala Thr Ile Thr Phe Ala Ala Thr Asp Phe 325 330 335			1008
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Ser	Thr	Thr	Thr	Ser	Ser	Ser	Thr	Ser	Leu	Leu	Thr	Gly	Gly	Gly	His		
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Leu	Lys	Pro	Glu	Leu	Thr	Val	Thr	Ser	Gly	Ile	Ser	Gln	Thr	Pro	Ala		
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Ala	Ser	Lys	Asn	Arg	Thr	Pro	Ser	Ile	Ser	Gly	Ile	Leu	Pro	Asn	Leu		
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Leu	Leu	Ser	Val	Leu	Pro	Pro	Val	Ile	Pro	Arg	Ala	Ser	Trp	Pro	Ser		
	1010				1015						1020						
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Ala	Glu	Tyr	Met	Gln	Ile	Pro	Met	Arg	Arg	Ser	Val	Thr	Phe	Ala	Ser		
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<212> PRT

<213> Drosophila melanogaster

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 Ser Pro Pro Gly Glu Ser Ala Ser Thr Val Thr Ala Gly Gly Thr Pro
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 Ile Pro Pro Arg Ser Asp Trp Lys Tyr Lys Arg Thr Lys Val Lys Arg
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 Ala Ser His Ala His His Leu Leu Asn Leu Pro Pro Arg Gln Arg Tyr
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Gly	Ser	Phe	Ser	Gln	Glu	Leu	Ala	Pro	Gln	Ile	Leu	Cys	Glu	Ala	Tyr	355	360	365	
Arg	Leu	Arg	Met	Phe	Gly	Ala	Asp	Tyr	Ala	Trp	Ile	Leu	His	Glu	Ser	370	375	380	
Met	Gly	Ala	Pro	Trp	Trp	Pro	Asp	Gln	Arg	Thr	Ala	Cys	Ser	Asn	His	385	390	395	400
Glu	Leu	Gln	Leu	Ala	Val	Glu	Asn	Leu	Ile	Val	Val	Ser	Thr	His	Asn	405	410	415	
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Phe	Asn	Ser	Gln	Leu	Arg	Lys	Gln	Ser	Ala	Gln	Phe	His	Gly	Gln	Asp	435	440	445	
Gly	Phe	Gly	Ser	Gly	Tyr	Gly	Pro	Arg	Ile	Ser	Ile	Ala	Ala	Thr	Gln	450	455	460	
Ser	Asp	Ser	Arg	Arg	Arg	Arg	Arg	Arg	Gly	Val	Val	Gly	Thr	Ser	Gly	465	470	475	480
Gly	His	Leu	Phe	Pro	Glu	Ala	Ile	Ser	Gln	Tyr	Ala	Pro	Gln	Thr	Tyr	485	490	495	
Asp	Ala	Val	Trp	Ala	Ile	Ala	Leu	Ala	Leu	Arg	Ala	Ala	Glu	Glu	His	500	505	510	
Trp	Arg	Arg	Asn	Glu	Glu	Gln	Ser	Lys	Leu	Asp	Gly	Phe	Asp	Tyr	Thr	515	520	525	
Arg	Ser	Asp	Met	Ala	Trp	Glu	Phe	Leu	Gln	Gln	Met	Gly	Lys	Leu	His	530	535	540	
Phe	Leu	Gly	Val	Ser	Gly	Pro	Val	Ser	Phe	Ser	Gly	Pro	Asp	Arg	Val	545	550	555	560
Gly	Thr	Thr	Ala	Phe	Tyr	Gln	Ile	Gln	Arg	Gly	Leu	Leu	Glu	Pro	Val	565	570	575	
Ala	Leu	Tyr	Tyr	Pro	Ala	Thr	Asp	Ala	Leu	Asp	Phe	Arg	Cys	Pro	Arg	580	585	590	
Cys	Arg	Pro	Val	Lys	Trp	His	Ser	Gly	Gln	Val	Pro	Ile	Ala	Lys	Arg	595	600	605	

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Ala	Phe	Asn	Leu	His	Phe	Arg	Lys	Leu	Lys	Ala	Ile	Lys	Leu	Ser	Ser	645	650	655
Pro	Lys	Leu	Ser	Asn	Ile	Thr	Ala	Val	Gly	Cys	Ile	Phe	Val	Tyr	Ala	660	665	670
Thr	Val	Ile	Leu	Leu	Gly	Leu	Asp	His	Ser	Thr	Leu	Pro	Ser	Ala	Glu	675	680	685
Asp	Ser	Phe	Ala	Thr	Val	Cys	Thr	Ala	Arg	Val	Tyr	Leu	Leu	Ser	Ala	690	695	700
Gly	Phe	Ser	Leu	Ala	Phe	Gly	Ser	Met	Phe	Ala	Lys	Thr	Tyr	Arg	Val	705	710	715
His	Arg	Ile	Phe	Thr	Arg	Thr	Gly	Ser	Val	Phe	Lys	Asp	Lys	Met	Leu	725	730	735
Gln	Asp	Ile	Gln	Leu	Ile	Leu	Leu	Val	Gly	Gly	Leu	Leu	Leu	Val	Asp	740	745	750
Ala	Leu	Leu	Val	Thr	Leu	Trp	Val	Val	Thr	Asp	Pro	Met	Glu	Arg	His	755	760	765
Leu	His	Asn	Leu	Thr	Leu	Glu	Ile	Ser	Ala	Thr	Asp	Arg	Ser	Val	Val	770	775	780
Tyr	Gln	Pro	Gln	Val	Glu	Val	Cys	Arg	Ser	Gln	His	Thr	Gln	Thr	Trp	785	790	795
Leu	Ser	Val	Leu	Tyr	Ala	Tyr	Lys	Gly	Leu	Leu	Leu	Val	Val	Gly	Val	805	810	815
Tyr	Met	Ala	Trp	Glu	Thr	Arg	His	Val	Lys	Ile	Pro	Ala	Leu	Asn	Asp	820	825	830
Ser	Gln	Tyr	Ile	Gly	Val	Ser	Val	Tyr	Ser	Val	Val	Ile	Thr	Ser	Ala	835	840	845
Ile	Val	Val	Val	Leu	Ala	Asn	Leu	Ile	Ser	Glu	Arg	Val	Thr	Leu	Ala	850	855	860
Phe	Ile	Thr	Ile	Thr	Ala	Leu	Ile	Leu	Thr	Ser	Thr	Thr	Ala	Thr	Leu	865	870	875
Cys	Leu	Leu	Phe	Ile	Pro	Lys	Leu	His	Asp	Ile	Trp	Ala	Arg	Asn	Asp	885	890	895
Ile	Ile	Asp	Pro	Val	Ile	His	Ser	Met	Gly	Leu	Lys	Met	Glu	Cys	Asn	900	905	910

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Ser Leu Arg Glu Arg Val Arg Gly Ser Pro Arg Phe Pro His Arg Ile
1220 1225 1230

Leu Pro Pro Thr Cys Ser Leu Ser Ala Leu Ala Glu Ser Glu Asp Arg
1235 1240 1245

Pro Gly Asp Ser Thr Ser Ile Leu Gly Ser Cys Lys Ser Ile Pro Arg
1250 1255 1260

Ile Ser Leu Gln Gln Val Thr Ser Gly Gly Thr Trp Lys Ser Met Glu
265 1270 1275 1280

Thr Val Gly Lys Ser Arg Leu Ser Leu Gly Asp Ser Gln Glu Glu Glu
1285 1290 1295

Gln Gln Ala Pro Ala Asn Gly Thr Glu
1300 1305

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